

# Arizona Invasive Species Management Plan

Prepared by the  
Arizona Invasive Species Advisory Council  
June 30, 2008



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# Executive Summary

## INTRODUCTION

The Arizona Invasive Species Advisory Council (AISAC) was initially created in 2005 by the Governor's Executive Order to develop a coordinated, multi-stakeholder approach for addressing invasive species issues in Arizona. In June 2006, recommendations to the Governor included that the AISAC be permanently established and a comprehensive invasive species management plan be developed.

The Governor's Executive Order in 2007 directed the AISAC to develop an invasive species management plan by June 30, 2008. This plan is based upon the framework recommended in the initial AISAC report and focused on five strategic concepts: Leadership and Coordination, Research and Information Management, Anticipation and Outreach, Control and Management, and Funding. In developing the plan, fifteen objectives and sixty-three recommendations were established to address invasive species needs in Arizona. Highlights of those recommended objectives and actions are as follows.

## LEADERSHIP & COORDINATION

- Identify lead coordination to facilitate the needs identified in the plan;
- Retain the vision of a coordinated, multi-stakeholder approach;
- Implement effective communication and coordination among state and federal agencies and stakeholders as well as with interstate, international and tribal entities; and
- Develop the Arizona Center for Invasive Species as a web-based network.

## RESEARCH & INFORMATION MANAGEMENT

- Prioritize and coordinate invasive species research efforts among state and federal agencies, universities, private landowners and neighboring states;
- Coordinate research efforts for data collection, storage, and use; and
- Develop and employ an Arizona invasive species website as a clearinghouse for the public and resource managers where they can contribute and access information.

## **ANTICIPATION & OUTREACH**

- Emphasize education, outreach and awareness across all audiences in support of the focal areas of this plan; and
- Expand and enhance statewide detection capabilities for effective, timely, and coordinated response to new invasive species threats.

## **CONTROL & MANAGEMENT**

- Identify and promote effective strategies for control and management of individual invasive species, and restoring impacted resources;
- Develop rapid assessment processes to improve the ability to respond to a critical invasive species threat in a timely manner;
- Develop and employ flexible yet consistent general best management practices to minimize the potential for unwanted introduction or spread of invasive species; and
- Support subsequent restoration efforts of affected resources.

## **FUNDING**

- Sustain the necessary infrastructure to support invasive species activities for the long-term functions of the plan;
- Identify creative funding solutions for the immediate future. Pursue future adequate and stable state funding resources to sustain the long term goals of the plan; and
- Identify, cultivate, and pursue specific federal and private funding opportunities to assist Arizona in meeting the invasive species challenge.

## **RECURRING THEMES**

The issues associated with invasive species are not expected to diminish or go away. These recommendations represent a comprehensive long-range vision based on ecological timelines, but with an eye to the incremental, achievable successes that cumulatively will shift the direction of invasive species management and shape the outcomes. Implementing this strategy will require a proactive approach. The AISAC believes the cost of doing nothing far outweighs the costs associated with the proactive recommendations identified in the management plan.

In developing the plan, specific themes appeared consistently across the strategic concepts and, as such, need to be emphasized. These repeating themes include needs to:

- Cooperate, coordinate, and increase the effectiveness of communication among agencies and stakeholders to implement comprehensive invasive species management;
- Implement the Memorandum Of Understanding and recruit additional stakeholders to ensure cooperation and collaboration;
- Create the Center for Invasive Species as a web-based network that would be the gateway for information collection, sharing, and distribution to aid the public, agencies and organizations in Arizona in addressing invasive species management needs;
- Seek to establish a rapid response fund and develop a strategy to assess the economic feasibility of creating a sustainable emergency response resource to address the long term issues associated with response to critical invasive species detections;
- Emphasize education and outreach as integral components to effectively accomplish goals identified in each strategic concept;
- Facilitate amending applicable state grant programs so that eligibility criteria would include addressing invasive species issues. Publicize grant opportunities that can potentially fund or enhance efforts for the strategic concepts;
- Pursue, cultivate, and secure creative funding solutions from public and private sources. Raise the awareness of state, federal, and community decision makers for sustained commitment to manage invasive species threats, complementary to and not in lieu of other priority initiatives and program needs.

The AISAC also recognizes that invasive species issues and needs are inter-related with other state movements including forest health, wildlife connectivity, smart growth, rural development, energy development, and climate change. Threats and impacts of invasive species can be identified and associated across all of these issues. Communication and cooperation among the AISAC and other Governor's advisory councils is important to a comprehensive understanding and management of invasive species.

Strategic Concept	Recommendation	Area of Focus			Cost	Time Frame	Lead Entity	Status
		Immediate Success	Short Term	Long Term				
Leadership & Coordination	1 Vacancies replaced at the discretion of the Governor. Appointments to be announced prior to the next quarterly council meeting.	x				quarterly	Office of the Governor and AISAC	
	2 Council may appoint state staff to assist NGO with organizational input and information transfer.				Refer to Recommendation #7	as needed	AISAC	
	3 Council meetings will be held no less than quarterly or on an as needed basis.	x				quarterly or as needed	AISAC	
	4 Initial Work Groups exist for the life of the AISAC Strategic Plan. Work Group goals and objectives will receive a performance review every two years and Strategic Plan will be updated every 5 years as needed.	x				ongoing	AISAC	
	5 Council may appoint additional Work Groups as needed.	x				as needed	AISAC	
	6 Comply with existing and future Open Meeting Laws and regulations	x				ongoing	AISAC	
	7 Identify and enlist State and Federal Agencies and Stakeholder commitments and contributions in the form of memorandums of understanding or inter-governmental agreements (MOUs or IGAs) to fulfill the functions identified in this management plan. Upon signing the MOU, each stakeholder may identify a liaison that will be a central point of contact.	x				July 08; ongoing	Council; AGFD, ADA, U of A	
	8 Establish coordinator positions to be staffed by Arizona Game and Fish Department, Arizona Department of Agriculture and the University of Arizona; each with individual functional responsibilities to further a statewide invasive species network under the guidance of the Council.	x			In Kind	following approval of Invasive Species Management Plan		AGFD, AZDA, U of A
	9 Identify and initiate the process for seeking legislative appropriations to sustain a minimum invasive species Rapid Response Fund with a suggested of 1M dollars with accountability of expenditures to the Governor's Office.		x	1M		assess feasibility in 2010	Office of the Governor, State Legislature; State Coordinators; Federal Partners	

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	10 Broaden the scope of existing grant programs available to communities, agencies, NGO's, and local volunteer groups and organizations demonstrating minimum fiduciary requirements required by the State of Arizona. Targeted goal of \$1M.		x			Jul-09	Federal, State, and local agencies and NGO's with existing grant funding	
	11 Develop a database and/or directory of key points of contact within other state, federal, and international agencies, tribes, and other organizations outside the State of Arizona (see Recommendation 24).				\$15K of in kind and reallocation of funds	Dec-08	State agencies, Universities, Cooperative Extension	
	12 Encourage involvement in regional forums and promote involvement in regional and broader partnerships. Identify local, state, regional, and international conferences, symposiums, and forums, and sponsor or co-sponsor events that pertain to invasive species.	x			\$30K per year	ongoing	All organizations that are part of the current network.	
	13 Adopt Alternative A, the Network Approach, as the recommended concept for a Center for Invasive species to address information, education, coordination, collaboration, resources and outreach needs; identify and establish priorities (research needs, coordination needs); motivate the public and increase awareness; and influence public to support invasive species priorities via social marketing.	x			In Kind	following approval of Invasive Species Management Plan	Office of the Governor and the AISAC	
	14 Formalize a standard protocol that details communication and cooperation strategies between local volunteer groups and local, state and federal agencies with oversight responsibilities.		x			Jul-09	State and Federal agencies with direct oversight responsibilities	
	15 Align and coordinate statewide jurisdictions to eliminate overlap and gaps in existing authorities and responsibilities.		x			on going	All agencies with enforcement authority.	
	16 Increase involvement of county and municipal governments in the implementation of the statewide invasive species management plan. Consider adding local government representation on AISAC.		x			on going	AISAC	
Research & Information Management	17 Identify invasive species subject matter experts including public and private scientists and resource managers; create and maintain a database of contact information, survey the experts every 2 years to identify current invasive species threats, and compile the information along with subject matter expert contact information in an accessible comprehensive database (see Recommendation 22).		x		In Kind	6 months following approval of Invasive Species Management Plan	AISAC Research & Information Management work group	

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	Conduct an initial review, followed by a regularly scheduled workshop (every 2 years recommended), of identified invasive species threats, and create a prioritized list of current a potential invasive species research needs. Catalogue all research data, reports, results for invasive species in an accessible comprehensive database.		x		cost recovery*, grants; private funding sources	ongoing	ASAC; invasive species coordinators	
18	Conduct research to enhance early detection and monitoring capabilities.			x	unknown	ongoing		
19	Be able to convene experts, scientists and resource managers to conduct rapid assessment of invasive species and their potential impacts. Catalogue all research data, reports, results for invasive species in an accessible comprehensive database (Recommendation 23).		x		unknown	ongoing	Center for Invasive Species / invasive species coordinators	
20	Create a task force of database and mapping experts to review existing information management systems and make recommendations to meet Arizona's invasive species database and mapping system needs.		x		in kind	Dec-08	AZGITA, NIC, AISAC	
21	Implement the invasive species database and mapping system identified by the Task Force (Recommendation 21). Identify the appropriate stakeholder(s) dedicated to: 1) database management and maintenance, and 2) web page design and maintenance (funding reallocated within existing budgets for responsible parties).		x		responsibilities may be absorbed within existing operating budgets of the agency or agencies	Jul-09	Dependent upon outcome of Recommendation 33	
22								
23	Create and maintain Arizona Invasive Species Web site to be overseen by a dedicated web manager.	x			operating costs   BD	create Dec-08; ongoing maintenance	Dependent upon outcome of Recommendation 33	

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	24	Make data easily accessible, easily and routinely updated, and available via a web interface (in coordination with Recommendation 22 & 23).		x	operating costs TBD	ongoing		Dependent upon outcome of Recommendation 17
	25	Maintain links to other invasive species related websites (in coordination with Recommendations 23 & 24).	x			ongoing	Web manager	
	26	Provide an online library (in coordination with Recommendations 23 & 24).		x		ongoing	Web manager	
	27	Review and analyze existing information to identify gaps.		x		annual	Invasive Species Coordinators	
Anticipation & Outreach	28	Conduct a survey of Arizona residents to determine baseline knowledge and awareness of invasive species issues and campaigns. conduct follow-up surveys to identify effectiveness of those campaigns, and related changes in behavior. Survey questions can be changed bi-annually or on an as needed basis to identify effectiveness of specific campaigns.	x		in kind	Initial: March 2008; then bi-annual;	Bi-annual Survey: AGFD (included in AGFD trend survey);	
	29	Outside of the Arizona Game and Fish Department's bi-annual "Trends" survey, additional surveys could be included in web-based releases to identify if a specific campaign is having the desired effect. Survey results will be shared with stakeholders and interested parties.		x	in kind	as needed	any lead agency with a campaign	
	30	Employ positive communication tools in campaign development as identified in Objective 9 of the management plan and make materials available to stakeholders and interested parties (in coordination with Recommendations 22 - 26).			x		ongoing	any lead agency with a campaign
	31	Develop Arizona Invasive Species logo/icon and make materials available to stakeholders and interested parties.	x		unknown	60 days following approval of Arizona Invasive Species Management Plan	AGFD; Anticipation and Outreach work group	

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	32	Develop a general invasive species campaign (e.g. Arizona's 10 most unwanted) that would include positive communication tools, curriculum development, and various deployment methods and make materials available to stakeholders and interested parties.	x		in kind	6 months following approval of Arizona Invasive Species Management Plan	AGFD and partners	
	33	Implement the advance detection system and outreach plan outlined (Objective 9) for informing the public, local, state and federal agencies of the risks of invasive species. Provide reporting mechanisms that include the Center for Invasive Species Website (Recommendation 23).		x	in kind	ongoing	Suitable process owners and partners	
	34	Adopt the 2003 NISC Invasive Species Pathways Report with minor revisions to make it Arizona specific.		x		upon permission from NISC	Council	
	35	Conduct a species-specific analysis of identified pathways to focus outreach and advance detection efforts. Adopt use of the Significance Criteria Questionnaire (Appendix E) for reporting invasive species pathways and determining priority of that pathway (and ensure the pathway is represented in the pathways outline). This task may be held concurrently with Recommendation 18.		x	in kind; external grant opportunity	within 1 year following approval of management plan, updated on continuous basis	MOU menu of responsibilities	
	36	Compile and share general best management practices for preventing movement of invasive species into and within the state of Arizona in accordance with Recommendation 51.		x		ongoing	Coordinators; stakeholders	
	37	Provide links to existing lists that identify regulated species, create a Council-approved list of species of concern, and identify prudent alternative species on the Web page. Update web page links as needed and provide lists to cooperators (Recommendation 23)		x		Within 90 days of development of Arizona invasive species web site	web manager (manage lists); Coordinators (develop list); Council (approve list)	
	38	Stakeholders with regulatory authority and/or expertise will advertise and provide training opportunities to other agencies to expand Arizona's early detection network.		x	in kind	ongoing	Suitable process owners and partners	

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	39	Develop self inspection processes that incorporate best management practices to increase the network of first line detection.* Include an easy reporting process, facilitated via Network for Invasive Species.		x		ongoing	Suitable process owners and partners	
<b>Control &amp; Management</b>	40	Develop and adopt Arizona specific impact categories that will be used to mobilize rapid response.	x		In Kind	FY 08-09	Council work group	
	41	Amend ADEM's Emergency Support Functions Plan to include invasive species rapid response. State Agencies with regulatory authorities will provide lists of regulated species to ADEM and provide updates as needed.	x		In Kind	FY 08-09	Invasive Species Coordinators and ADEM, AGFD, ADA	
	42	Identify appropriate agency personnel who would benefit from incident command training. Employ the Federal Emergency Management Agency ICS-100 & 200 training program to provide incident command certification for appropriate agency personnel.	x		In Kind	FY 08-09; ongoing	Agencies with response capabilities	
	43	Develop a mechanism to evaluate effectiveness of rapid response activities and make adjustments as necessary.	x		In Kind	FY 08-09; ongoing	Process Owners	
	44	Construct procurement contracts to allow other government agencies to utilize them	x		In Kind	FY 08-09	Lead State Agencies	
	45	Through the State Purchasing Office provide a link to a comprehensive directory of contracts and contractors related to invasive species control, management, and restoration.	x		In Kind	FY 08-09	Invasive Species Coordinators and the State Purchasing Office (SPRIT)	
	46	Support development of training opportunities to provide credentials for certified personnel and ensure to update contact information in the database of subject matter experts (Recommendation 17).	x		In Kind	ongoing	Agencies with training capabilities (i.e. ADA, Universities, Structural Pest Control Comm., etc.)	
	47	State Agencies should review relevant PDO's to make certain that appropriate training will be provided and ensure that job descriptions adequately cover expertise needs.	x		In Kind	FY 08-09	Agencies with IS positions; In accordance with agencies mission; In cooperation with Universities	

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	48	Be able to convene experts, scientists, resource managers, and qualified personnel with applicable certifications to conduct rapid mobilization and response to invasive species and their potential impacts. Catalogue all research data, reports, results for invasive species in an accessible comprehensive database (Recommendation 24).	x	unknown	ongoing		Center for Invasive Species / invasive species coordinators	
	49	Identify the kinds of standing agreements that need to be executed to provide a mechanism for resource sharing and a willingness to cooperate among agencies and stakeholders	x	In Kind	Aug-08	Council & Council work groups		
	50	Utilize public participation programs for invasive species control and management practices and to raise awareness (Appendix H)	x	In Kind	FY 08-09; ongoing	Agency liaisons (recommendation 7)		
	51	Develop, share and seek to implement Best Management Practices (BMPs) for control and management of invasive species and restoration practices in accordance with Recommendation 36.	x	In Kind	FY 08-09; ongoing	Agencies and organizations with responsibilities in invasive species control and management		
	52	Utilize conferences for information distribution and information gathering as it pertains to control and management of invasive species and restoration practices. (In support of recommendation 12)	x	In Kind	FY 08-09; ongoing	Office of the Governor, ADA, & AGFD		
	53	Regularly review and publish outcomes of invasive species control and management efforts to the central data base developed and maintained by the Network for Invasive Species. (Refer to recommendation 18 & 26).	x	In Kind	ongoing	Council		
	54	Provide guidance, including but not limited to technical assistance and access to information for restoration and rehabilitation (Refer to Recommendations 18 & 26).	x	In Kind	ongoing	Agencies and Stakeholders; Center for Invasive Species		
	55	Identify and publicize potential resources (e.g. funding opportunities) for restoration efforts following a regulated invasive species control action.	x	In Kind	ongoing	Center for Invasive Species		
	56	Convene and conduct an initial systematic review of past and present major rehabilitation and restoration efforts on invasive species (in accordance with recommendations 18).	x	In Kind	within horizon of management plan	Agencies and stakeholder with reporting capabilities		

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Funding	57	Assign a grant coordinator who will assist applicants in obtaining external grants, and pursue opportunities for broadening the scope of existing grants. Grant coordination functions may be undertaken by one of the three invasive species coordinators identified in Recommendation 8 and 10.		x	In Kind	following approval of Invasive Species Management Plan	Center for Invasive Species	
	58	Create, publicize and maintain a list and calendar of granting opportunities relative to invasive species; categorize this list and make it available for review on the Invasive Species Web site in coordination with recommendations 23–25.		x	In Kind	60 days following deployment of invasive species web site	Grant coordinator	
	59	Consult the list of research needs and the evaluation of information gaps (Recommendations 18 and 27) to provide direction for project proposals and grant applications. Seek to support the development of relevant issue specific impact assessments in support of securing additional funding sources to meet invasive species needs.		x		ongoing	AISAC Universities; Agencies	
	60	Identify and pursue specific federal funding opportunities. Convene a work group to track, review and comment on new legislation and pursue (identify, write and submit) AISAC-approved federal funding opportunities.		x		ongoing	AISAC	
	61	Complete and submit an Arizona ANS plan for approval by the national ANS Task Force.		x		8-Dec	AGFD	
	62	Survey identified user groups to assess interest and feasibility of securing funding to support invasive species related needs.		x				
	63	Identify the steps needed to seek legislative appropriation.		x		within horizon of management plan	AISAC	